AT-FS201
AT-FS201ST/FS1, FS2, FS3
AT-FS202
AT-FS202SC/FS1, FS2, FS3
AT-FS203

Fast Ethernet Switches

Installation Guide

PN 613-10761-00 Rev B

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Safety Warnings

Standards: This product meets the following standards

U.S. Federal Communications Commission
RADIATED ENERGY Note: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Note: Modifications or changes not expressly approved of by the manufacturer or the FCC, can void your right to operate this equipment.

Industry Canada
This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

RFI Emission EN55022 Class A ↷ **1**

Warning: In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures. ↷ **2**

Immunity EN50082-1 1997 ↷ **3**

Warning: This product requires shielded cables to comply with emission and immunity standards. If it is used with unshielded cables, the user may be required to take measures to correct the interference problem at their own expense. ↷ **4**

Electrical Safety EN60950, UL1950, CSA 950 ↷ **5**

Laser EN60825 ↷ **6**

Warning Class 1 Laser product. ↷ **7**

Warning Do not stare into the Laser beam. ↷ **8**

At time of installation, the Fiber Optic Lasers comply with FDA Radiation Performance Standard 21CFR Subchapter J, applicable at date of manufacture.

This is a "CLASS 1 LED PRODUCT" (AT-FS201, AT-FS202, AT-FS203 models) ↷ **9**

Important: Appendix B contains translated safety statements for installing this equipment. When you see the ↷, go to Appendix B for the translated safety statement in your language.

Wichtig: Anhang B enthält übersetzte Sicherheitshinweise für die Installation dieses Geräts. Wenn Sie ↷ sehen, schlagen Sie in Anhang B den übersetzten Sicherheitshinweis in Ihrer Sprache nach.

Vigtigt: Tillæg B indeholder oversatte sikkerhedsadvarsler, der vedrører installation af dette udstyr. Når De ser symbolet ↷, skal De slå op i tillæg B og finde de oversatte sikkerhedsadvarsler i Deres eget sprog.

Belangrijk: Appendix B bevat vertaalde veiligheidsopmerkingen voor het installeren van deze apparatuur. Wanneer u de ↷ ziet, raadpleeg Appendix B voor vertaalde veiligheidsinstructies in uw taal.

Important: L'annexe B contient les instructions de sécurité relatives à l'installation de cet équipement. Lorsque vous voyez le symbole ✍, reportez-vous à l'annexe B pour consulter la traduction de ces instructions dans votre langue.

Tärkeää: Liite B sisältää tämän laitteen asentamiseen liittyvät käännetyt turvaohjeet. Kun näe ✍-symbolin, katso käännettyä turvaohjetta liitteestä B.

Importante: l'Appendice B contiene avvisi di sicurezza tradotti per l'installazione di questa apparecchiatura. Il simbolo ✍, indica di consultare l'Appendice B per l'avviso di sicurezza nella propria lingua.

Viktig: Tillegg B inneholder oversatt sikkerhetsinformasjon for installering av dette utstyret. Når du ser ✍, åpner du til Tillegg B for å finne den oversatte sikkerhetsinformasjonen på ønsket språk.

Importante: O Anexo B contém advertências de segurança traduzidas para instalar este equipamento. Quando vir o símbolo ✍, leia a advertência de segurança traduzida no seu idioma no Anexo B.

Importante: El Apéndice B contiene mensajes de seguridad traducidos para la instalación de este equipo. Cuando vea el símbolo ✍, vaya al Apéndice B para ver el mensaje de seguridad traducido a su idioma.

Obs! Bilaga B innehåller översatta säkerhetsmeddelanden avseende installationen av denna utrustning. När du ser ✍, skall du gå till Bilaga B för att läsa det översatta säkerhetsmeddelandet på ditt språk.

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Welcome to Allied Telesyn

This guide contains instructions on how to install the AT-FS201, AT-FS202, and AT-FS203 Series of Fast Ethernet Switches.

Where to Find Web-based Guides

The Allied Telesyn web site at **www.alliedtelesyn.com** provides you with an easy way to access the most recent documentation and technical information for all of our products. For product guides, you can go directly to the following web page: **www.alliedtelesyn.com/support/lib_allproducts.htm**.

Document Conventions

This guide uses several conventions that you should become familiar with first before you begin to install the product.

Note
A note provides additional information.

Caution
A caution indicates that performing or omitting a specific action may result in equipment damage or loss of data.

Warning
A warning indicates that performing or omitting a specific action may result in bodily injury.

Contacting Allied Telesyn

There are several ways to contact Allied Telesyn technical support: online, telephone, fax, and e-mail.

Online Support

You can request technical support online by filling out the Tech-Assistant Form at **www.alliedtelesyn.com/support.htm**.

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Tel: (+49) 0130/83-56-66
Fax: (+49) 30-435-900-115

Asia
Singapore, Taiwan, Thailand, Malaysia, Indonesia, Korea, Philippines, China, India, Hong Kong
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Fax: (+65) 383-3830

Italy
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Tel: (+39) 02-416047
Fax: (+39) 02-419282

Australia
Tel: 1 (800) 000-880
Fax: (+61) 2-9438-4966

Japan
Tel: (+81) 3-3443-5640
Fax: (+81) 3-3443-2443

France
France, Belgium, Luxembourg, The Netherlands, Middle East, Africa
Tel: (+33) 0-1-60-92-15-25
Fax: (+33) 0-1-69-28-37-49

United Kingdom
United Kingdom, Denmark, Norway, Sweden, Finland
Tel: (+0044) 1235-442500
Fax: (+44) 1-235-442680

Technical Support E-mail Addresses

United States and Canada
TS1@alliedtelesyn.com

Latin America, Mexico, Puerto Rico, Caribbean, and Virgin Islands
latin_america@alliedtelesyn.com

United Kingdom, Sweden, Norway, Denmark, and Finland
support_europe@alliedtelesyn.com

Returning Products

Products for return or repair must first be assigned a Return Materials Authorization (RMA) number. A product sent to Allied Telesyn without a RMA number will be returned to the sender at the sender's expense.

To obtain an RMA number, contact Allied Telesyn's Technical Support at one of the following locations:

North America
2205 Ringwood Ave
San Jose, CA 95131
Tel: 1-800-428-4835, option 4
Fax: 1-503-639-3716

European Customer Support Centre
10/11 Bridgemead Close
Westmead Industrial Estate
Swindon, Wiltshire SN5 7YT
England
Tel: +44-1793-501401
Fax: +44-1793-431099

Latin America, the Caribbean, Virgin Islands
Tel: international code + 425-481-3852
Fax: international code + 425-483-9458

Mexico and Puerto Rico
Tel: 1-800-424-5012, ext 3852 or
1-800-424-4284, ext 3852
Mexico only:95-800-424-5012, ext 3852
Fax: international code + 425-489-9191

FTP Server

If you need a device driver for an Allied Telesyn device, such as an AT-8224XL Fast Ethernet Switch, you can download the driver from our FTP server at **ftp://gateway.centre.com**.

At login, enter 'anonymous'. Enter your e-mail address for the password as requested by the server at login.

For Sales or Corporate Information

Allied Telesyn International, Corp.
19800 North Creek Parkway, Suite 200
Bothell, WA 98011
Tel: 1 (425) 487-8880
Fax: 1 (425) 489-9191

Allied Telesyn International, Corp.
960 Stewart Drive, Suite B
Sunnyvale, CA 94086
Tel: 1 (800) 424-4284 (USA and Canada)
Fax: 1 (408) 736-0100

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If you have any comments or suggestions on how we might improve this or other Allied Telesyn documents, you can fill out the "AT-FS201, AT-FS202 and AT-FS203 Series Installation Guide Feedback" on page 39 and return the form to us at the address or fax number provided. You can also provide feedback online by filling out the Feedback on Documentation form at **www.alliedtelesyn.com/forms/feedbackman.htm**.

Chapter 1
Description

The AT-FS201, AT-FS202, and AT-FS203 Series of Fast Ethernet Switches are designed to interconnect LAN devices and subnetworks over large distances into an integrated network. These dual-port switches can also be used to improve the performance of your network by dividing it into smaller, more manageable segments.

The AT-FS201 and AT-FS202 Switches feature one 10/100Base-TX twisted pair port with an operating distance of 100 meters (328 feet), and a 100Base-FX fiber optic port with an operating distance of 2 kilometers (1.2 miles) to 75 kilometers (46.5 miles), depending on the model.

The AT-FS203 Switch features two 10/100Base-TX ports, each with a maximum distance of 100 meters (328 feet).

These Fast Ethernet switches can be installed either as standalone units, such as on a table, or in an AT-MCR12 or AT-TRAY4 Chassis. They are easy to install and do not require software configuration or management. The following figures illustrate the front and rear panels of each switch.

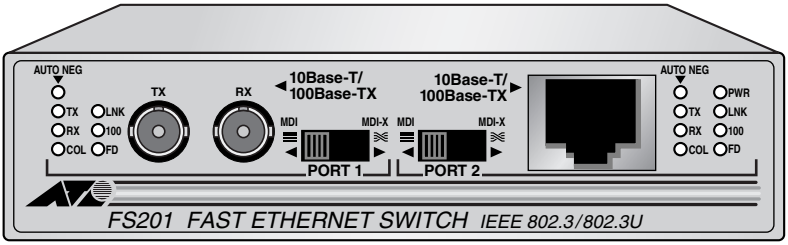


Figure 1 AT-FS201 Front Panel

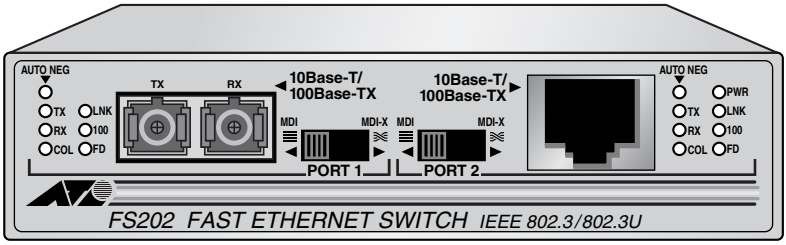


Figure 2 AT-FS202 Front Panel

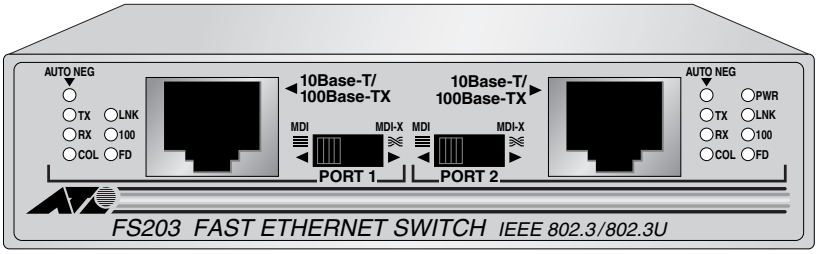


Figure 3 AT-FS203 Front Panel

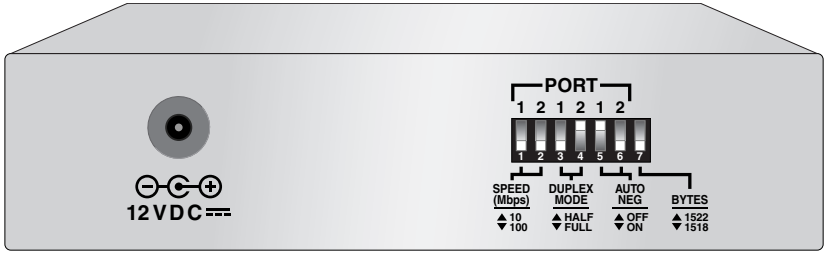
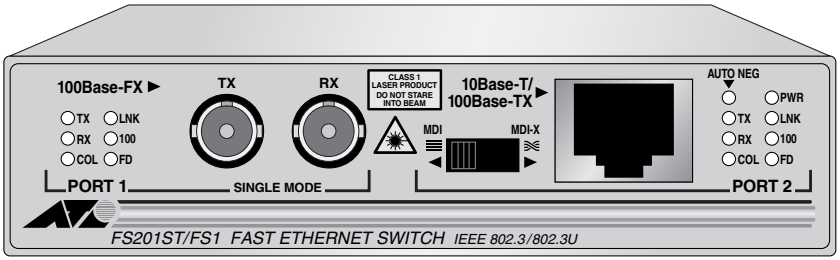
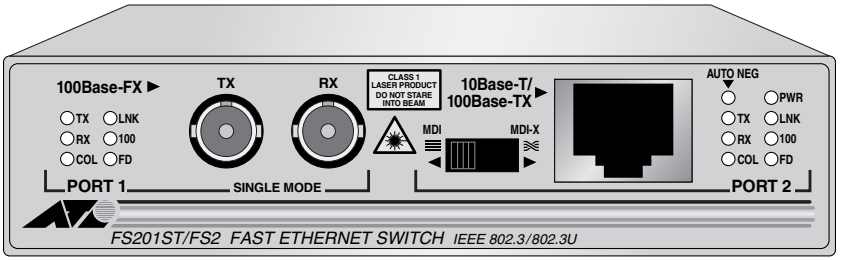


Figure 4 Rear Panel of the AT-FS203 Switch

AT-FS201ST/FS1



AT-FS201ST/FS2



AT-FS201ST/FS3

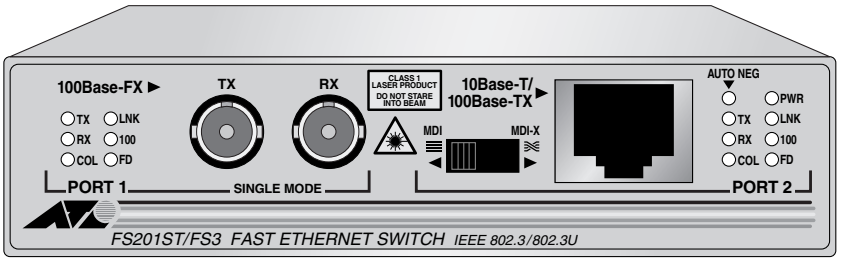
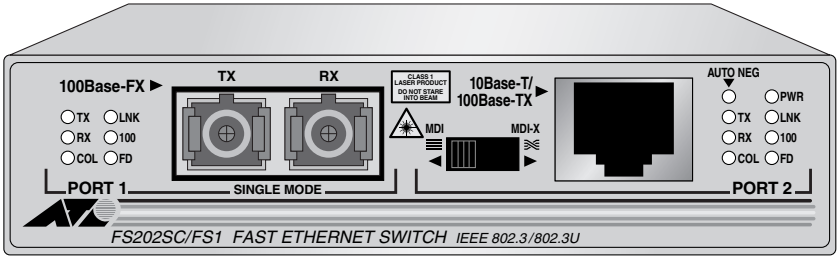
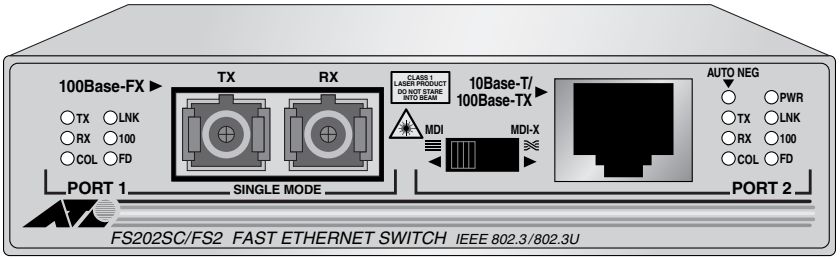


Figure 5 AT-FS201ST Series Front Panel

AT-FS202SC/FS1



AT-FS202SC/FS2



AT-FS202SC/FS3

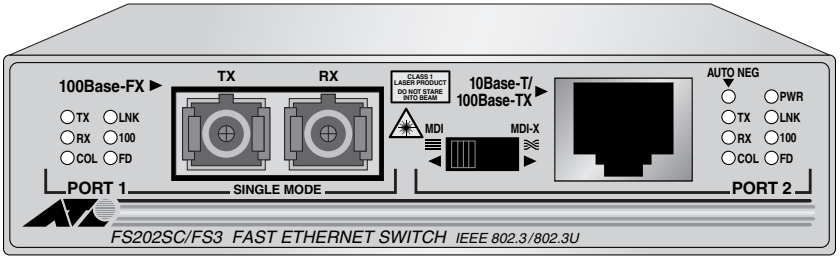


Figure 6 AT-FS202SC Series Front Panels

Figure 7 illustrates the rear panel of the AT-FS201SC and AT-FS202ST Series Switches.

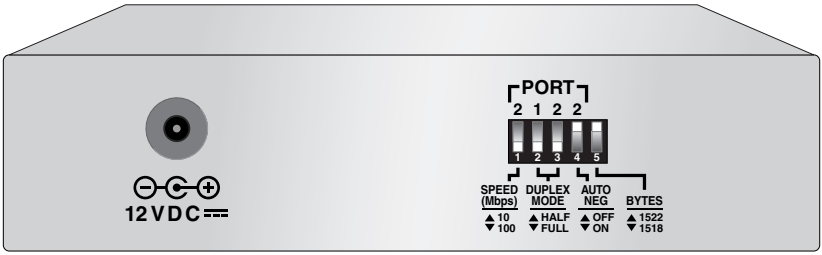


Figure 7 Rear Panel of the AT-FS201SC and AT-FS202ST Switches

Table 1 Maximum Operating Distance

Model	Type of Connector		Maximum Distance	
	Port 1	Port 2	Port 1	Port 2
AT-FS201	RJ-45	ST	100 m (328 ft)	2 km (1.2 mi)
AT-FS201ST/FS1	RJ-45	ST	100 m (328 ft)	15 km (9.3 mi)
AT-F201ST/FS2	RJ-45	ST	100 m (328 ft)	40 km (24.8 mi)
AT-FS201ST/FS3	RJ-45	ST	100 m (328 ft)	75 km (46.5 mi)
AT-FS202	RJ-45	SC	100 m (328 ft)	2 km (1.2 mi)
AT-FS202SC/FS1	RJ-45	SC	100 m (328 ft)	15 km (9.3 mi)
AT-FS202SC/FS2	RJ-45	SC	100 m (328 ft)	40 km (24.8 mi)
AT-FS202SC/FS3	RJ-45	SC	100 m (328 ft)	75 km (46.5 mi)
AT-FS203	RJ-45	RJ-45	100 m (328 ft)	100 m (328 ft)

Key Features

The switches have the following key features:

- ❑ LEDs for unit and port status
- ❑ MDI/MDI-X switch
- ❑ External AC/DC power adapters (North America, Continental Europe, or United Kingdom)
- ❑ DIP switches for configuring the ports
- ❑ Full- or half-duplex operation on both ports
- ❑ ST or SC fiber optic connectors
- ❑ Data packet forwarding and filtering at full wire speed (10 Mbps to 100 Mbps, 100 Mbps to 100 Mbps, and 10 Mbps to 10 Mbps)
- ❑ Store and forward switching mode
- ❑ Automatic address learning and aging
- ❑ IEEE 802.3u compliant auto-negotiation
- ❑ Standard, compact size for use on a tabletop or in an AT-MCR12 or AT-TRAY4 Chassis

Switch Performance

The switches perform at:

- 148,800 pps for 100 Mbps and 14,880 pps for 10 Mbps for full wire speed forwarding and filtering
- 200 Mbps maximum throughput in 100 Mbps, full-duplex mode
- 20 Mbps maximum throughput in 10 Mbps, full-duplex mode
- Up to 8,192 unicast MAC addresses and unlimited multicast/ broadcast addresses
- 280 kib bytes (per port) packet buffer
- Low latency 14.3 µs (64-byte packet, 100 Mbps full-duplex)

Note
For definitions of technical terms associated with Allied Telesyn products, refer to the Glossary on Allied Telesyn's web site at **www.alliedtelesyn.com/support/gloss_a.htm**.

Status LEDs

Table 2 defines the switch LEDs.

Table 2 LEDs

LED	State	Color	Description
PWR	ON	Green	Power is applied.
LNK	ON	Green	Link established on the port.
100	ON	Green	The port is operating at 100 Mbps.
	OFF		The port is operating at 10 Mbps.
FD	ON	Amber	Full-duplex mode is enabled (two-way independent transmission).
	OFF		Half-duplex mode is enabled, indicating transmission only in one direction at a time.
AUTO NEG	ON	Green	Auto-negotiation is enabled on the port.
TX	ON	Green	Data is being transmitted on the port.
RX	ON	Green	Data is being received on the port.
COL	ON	Amber	The port is sensing a collision signal.

External AC/DC Power Adapter

The power adapter supplies 12V DC to the switch. Allied Telesyn supplies an approved safety compliant AC power adapter for the 120 and 240V AC versions with an unregulated output of 12V DC.

Figure 8 External AC/DC Power Adapter (North American version shown)

MDI/MDI-X Switch

The MDI/MDI-X (Media Dependent Interface/Media Dependent Interface with Crossover) switch, located on the front panel, is a straight-through or crossover cable selection switch. It enables the RJ-45 port to be connected to a repeater or DTE device without using a special crossover cable. The default setting of the switch is MDI-X, which means you can connect the RJ-45 port to a workstation or to any other DTE device that uses a straight-through cable. For the MDI configuration, slide the switch to the MDI position and connect the RJ-45 port to a repeater, hub, or switch using a straight-through cable. See Figure 9.

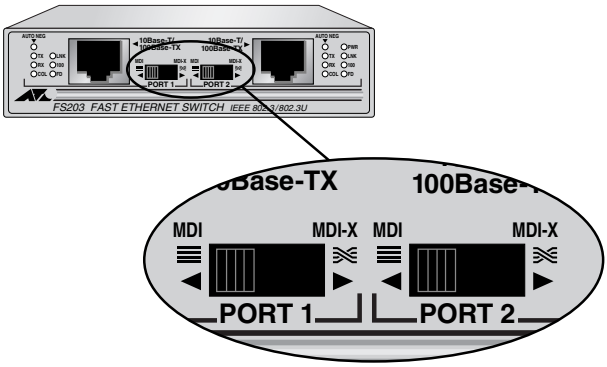


Figure 9 MDI/MDI-X Switch

Configuration Switches

The configuration switches on the rear panel of the unit are used to configure the operating characteristics of the port, such as it's port speed and duplex mode, and the maximum packet size allowed by the switch.

Configuring a 100Base-FX fiber optic port involves setting its duplex mode to either half- or full-duplex. Configuring a 10/100Base twisted pair port involves setting the speed and duplex mode. You can have the switch do this automatically through auto-negotiation or you can set these values manually.

The Byte switch controls the maximum packets size that the unit will allow. You can set the switch to either 1518 bytes, which is the normal Ethernet packet size or to 1522 bytes, which make the Ethernet unit compliant with the IEEE 802.1Q VLAN tagging standard.

Functional Description

The AT-FS200 series of switches function as unmanaged dual-port switches.

Frame Processing

The switches support store and forward switching at Fast Ethernet full-wire speed either in 10 or 100 Mbps, half- or full-duplex mode. Packets entering each port are stored in buffers. After the full packet is received, it is forwarded or discarded depending on its destination address and error status. This ensures that only error-free data packets destined for another segment will be transferred across the switch, reducing network load. For example, if the packet entering from Port 1 is destined for an end station on Port 2, it will be forwarded if the Frame Check Sequence (FCS) is valid. If the packet from Port 1 is destined for an end station also attached to Port 1, then the packet is discarded.

The switch will discard CRC error, misaligned, runt, and under-sized/over-sized packets. When the packet has dribble bits at the end, the switch will truncate to octet boundary and check for a good FCS before forwarding.

Address Recognition and Filtering

Up to 8,192 MAC addresses can be stored in the MAC address table. The switch will learn all new addresses in real-time after power-up with its address self-learning mechanism. If the source address of an incoming packet is not found in the address table, the switch waits until the end of the packet to check for good CRC and then updates its MAC address table. Because the switch has Automatic Address Aging, if a source address entry in the table is not updated within five minutes, the entry is deleted from the table. The switch forwards multicast, broadcast, and unicast packets when the MAC address table size is exceeded.

Network Topologies

Figure 10 shows a network configuration where an AT-FS203 Switch is used to interconnect two small networks of stackable hubs.

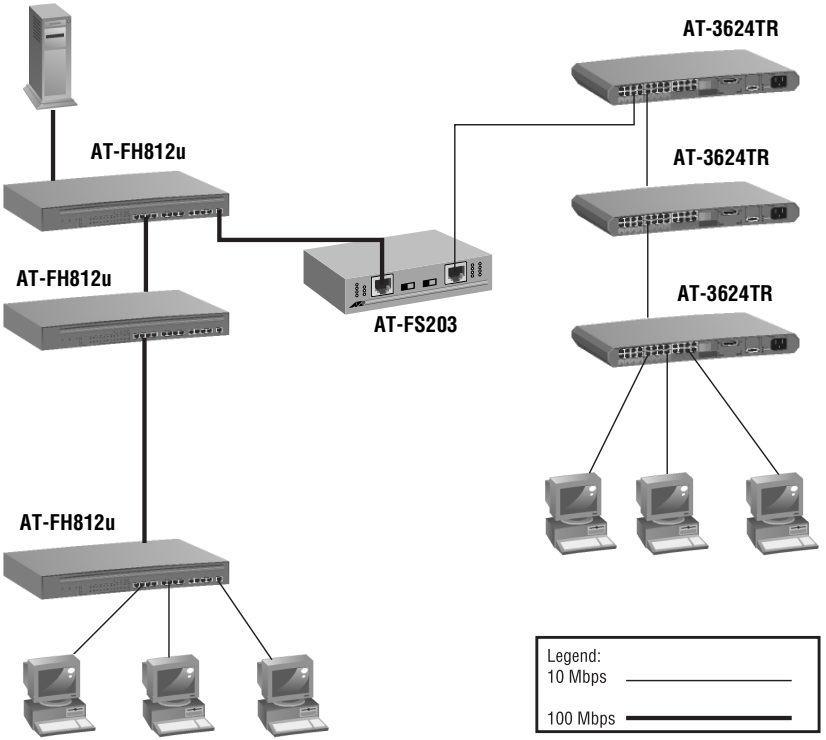


Figure 10 Typical Configuration Using the AT-FS203 Switch

Chapter 2
Installing the Switch

This chapter explains how to install the switch. The switch can be installed either as a standalone unit, such as on a table, or in an AT-MCR12 or AT-TRAY4 Chassis.

Verifying the Package Contents

Make sure the following items are included in your switch package. If any of the following items are missing or damaged, contact your sales representative.

- ❑ AT-FS201, AT-FS202, or AT-FS203 Fast Ethernet Switch
- ❑ Four protective feet (for standalone use only)
- ❑ External AC/DC power adapter (North America, Continental Europe, or United Kingdom)
- ❑ This installation guide
- ❑ Warranty card

Planning the Installation

Be sure to observe the following guidelines when planning the installation of your Ethernet switch.

- ❑ The end node connected to the fiber optic port on an AT-FS201ST or AT-FS202SC switch must be able to operate at 100 Mbps.
- ❑ The end node connected to the twisted pair port(s) can operate at either 10 Mbps or 100 Mbps.
- ❑ The end node connected to a port on the switch can be a network adapter card, repeater, router, hub, or another switch.
- ❑ The twisted pair cabling must be kept away from sources of electrical noise, such as radios, transmitters, power lines, broadband amplifiers, electrical motor, and fluorescent fixtures.
- ❑ Refer to Table 3 for the cabling specifications for the twisted pair port(s).

Table 3 10/100Base-TX Twisted Pair Cabling Specifications

Operating Mode	Cable Type	Maximum Distance
10Base-T	Shielded or unshielded Category 3 or better	100 m (328 ft)
100Base-TX	Shielded or unshielded Category 5 or better	100 m (328 ft)

- ❑ Refer to Table 4 for the cabling specifications for the fiber optic port operating in full-duplex mode.

Table 4 100Base-FX Fiber Optic Cabling Specifications (Full-duplex) for Port 2

Model	Type of Fiber Optic Cable	Maximum Distance	Maximum Allowable Loss Budget
AT-FS201	50/125 or 62.5/125 micron multimode	2 km (1.2 mi)	13 dB at 1310 nm
AT-FS201ST/FS1	50/125 or 62.5/125 micron multimode	2 km (1.2 mi)	13 dB at 1310 nm
	9/125 micron single-mode	15 km (9.3 mi)	16 dB at 1310 nm
AT-F201ST/FS2	9/125 micron single-mode	40 km (24.8 mi)	30 dB at 1310 nm
AT-FS201ST/FS3	9/125 micron single-mode	75 km (46.5 mi)	33 dB at 1310 nm
AT-FS202	50/125 or 62.5/125 micron multimode	2 km (1.2 mi)	13 dB at 1310 nm
AT-FS202SC/FS1	50/125 or 62.5/ 125 multimode	2 km (1.2 mi)	13 dB at 1310 nm
	9/125 micron single-mode	15 km (9.3 mi)	16 dB at 1310 nm
AT-FS202SC/FS2	9/125 micron single-mode	40 km (24.8 mi)	30 dB at 1310 nm
AT-FS202SC/FS3	9/125 micron single-mode	75 km (46.5 mi)	33 dB at 1310 nm

Note
Refer to Appendix A for further information on the technical specifications of the fiber optic port on the switch.

- ❑ Refer to Table 5 for the cabling specifications for the fiber optic port operating in half-duplex mode.

Table 5 100Base-FX Fiber Optic Ports (Half-duplex) For Port 2[1]

Number of Media Converters	Connected Devices	Maximum Distance
One Media Converter Inline	Switch to switch	372 m (1,221 ft)
	Workstation to switch	372 m (1,221 ft)
	Switch to Class I repeater	137 m (450 ft)
	Switch to Class II repeater	185 m (607 ft)
Two Media Converters Inline	Switch to switch	332 m (1,089 ft)
	Workstation to switch	322 m (1, 089 ft)
	Switch to Class I repeater	97 m (318 ft)
	Switch to Class II repeater	145 m (476 ft)

1. The total distance of the fiber optic lengths cannot exceed the limits stated in the table. Each media converter used inline within a single collision domain reduces the overall segment length by 40 m (131 ft).

Selecting a Site

Be sure to observe the following requirements when choosing a site for your switch.

- ❑ Select a site that is dust-free and moisture-free.
- ❑ Be sure that the site will allow you to easily access the fiber optic and twisted pair cables and the power cord.
- ❑ Use dedicated power circuits or power conditioners to supply reliable power to the device.

Installing the Switch

To install the switch, perform the following procedures:

1. Remove all equipment from the package and store the packaging in a safe place.

2. If you are installing the switch as a standalone unit, attach the four rubber feet to the base of the unit, placing one rubber foot in each corner. (For rack-mount chassis installation, do not attach the feet.)

3. Configure the DIP switches on the rear panel of the unit. Refer to Figure 11 and Figure 12 for the location of the switches and Table 6 and Table 7 for the possible settings.

Table 6 DIP Switch Settings for the AT-FS201 and AT-FS202 Switches

Port	**2**	**1 2**	**2**	
	Speed (Mbps)	Duplex Mode	Auto-neg	Bytes
Up	10	Half	Off	1522
Down	100	Full	On	1518

Table 7 DIP Switch Settings for the AT-FS203 Switch

Port	**1 2**	**1 2**	**1 2**	
	Speed (Mbps)	Duplex Mode	Auto-neg (only)	Bytes
Up	10	Half	Off	1522
Down	100	Full	On	1518

When setting the DIP switches, consider the following:

- The default setting of 1518 bytes for the maximum packet size is the upper limit of the allowable Ethernet packet size as specified in the IEEE 802.3 standard. At this setting, any packets over this size will be considered illegal and will be dropped as part of the switch's error-handling operations.
- Changing the setting of the maximum packet size to 1522 causes the switch to function as a passive component of the network in accordance with the IEEE 802.1Q VLAN tagging standard. The switch will pass packets that adhere to the standard. This 1522 setting should be used only in a network that uses the IEEE 802.1 Q VLAN tagging standard.
- For a twisted pair port(s), setting the AUTO NEG switch to either ON or OFF either enables or disables auto-negotiation on the port. If you disable auto-negotiation, be sure to set the DIP switches for the port's speed and duplex mode to match the speed and duplex mode of the end-node.
- For a fiber optic port, set the port's duplex mode using the appropriate DUPLEX MODE DIP switch. This setting must match the duplex mode capability of the end-node to be connected to the port.

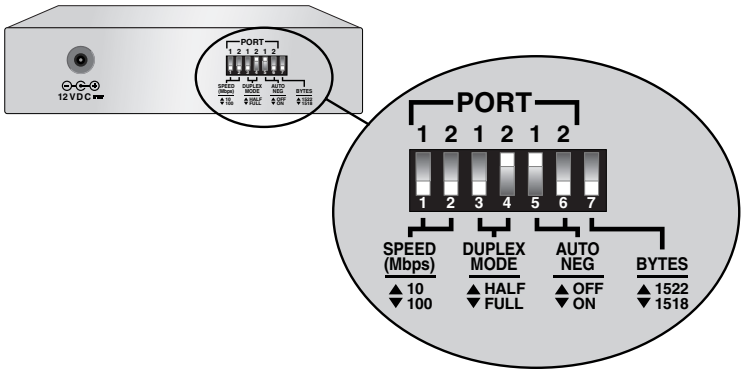


Figure 11 AT-FS203 DIP Switches

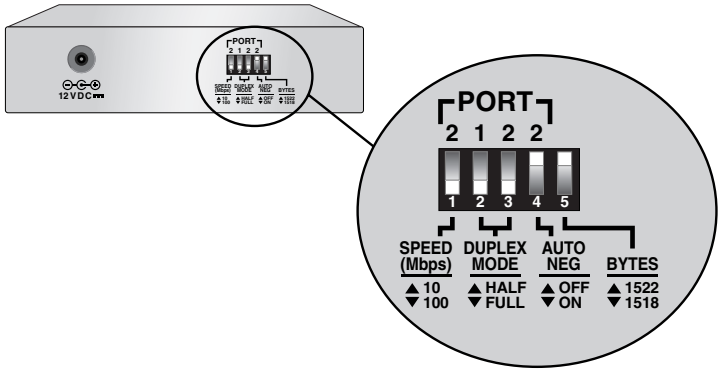


Figure 12 AT-FS201SC and AT-FS202ST DIP Switches

4. If you are installing the switch as a standalone unit, plug the AC/DC power adapter into an appropriate AC power outlet and insert the power plug into the DC receptacle, located on the rear panel. If you are installing the switch in an AT-MCR12 or AT-TRAY4 Chassis, refer to the appropriate guide for installation instructions.

5. Verify that the PWR LED on the switch lights green.

6. For an AT-FS201 or AT-FS202 switch, remove the dust cover from the fiber optic port.

7. For an AT-FS201 or AT-FS202 switch, plug the fiber optic cable into Port 1. Verify that the near-end node transmitter port (TX) is connected to the far end node receiver port (RX) and vice versa.

8. Plug the twisted pair cable(s) into the RJ-45 connector(s) (Port 2 for an AT-FS201 or AT-FS202 switch and Ports 1 and 2 for the AT-FS203 switch).

9. Set the MDI/MDI-X switch as follows:

   - ❑ If you are connecting the twisted pair port to a workstation, set the MDI/MDI-X switch to the MDI-X position.
   - ❑ If you are connecting the twisted pair port to a hub or to another switch, set the MDI/MDI-X switch to the MDI position. See Figure 13.

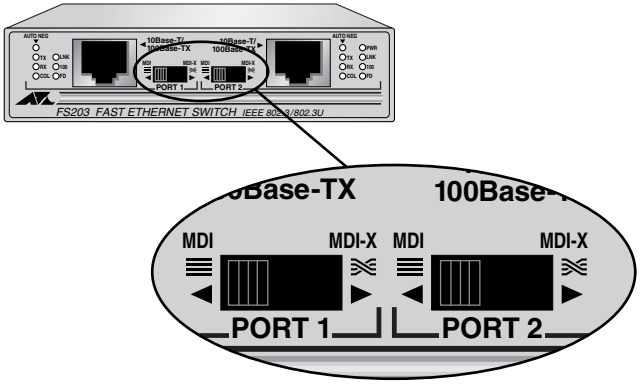


Figure 13 MDI/MDI-X Switch

Warranty Registration

When you finish the installation, register your product by completing the enclosed warranty card and sending it in, or by visiting our web site at **www.alliedtelesyn.com/forms/warranty.htm** and completing the on-line registration.

Troubleshooting

This section contains guidelines for troubleshooting the unit should a problem occur.

> **Note**
> Whenever the speed and/or duplex mode are changed during or after power ON, power OFF then power back on the switch to load the new configuration.

Is the Switch Receiving Power?

- ❑ Verify that the Power LED is lit.
- ❑ If the Power LED is not ON, check the AC power adapter to verify that the adapter is plugged into a functioning wall outlet and that the DC power cord is properly inserted into the switch's power connector.

Connectivity Testing

1. Connect each port to a node or workstation. Then connect the power cord.

2. Verify that the Link LEDs for Port 1 and Port 2 are lit.

If the Link LED does not light (TX):

- ❑ Verify that the switch's port matches the speed selection of the device attached to the other end.
- ❑ The switch settings are represented by each port's LEDs. For troubleshooting purposes, determine the current port settings, for example auto-negotiation, 10 or 100 Mbps (speed) duplex mode.
- ❑ Change the MDI/MDI-X switch setting on the port and see if a link occurs. If not, put the switch back to its original configuration.

If the Link LED does not light (FX):

- ❑ Make sure the remote end of the fiber optic cable is connected to a 100Base-FX device.
- ❑ Swap the near end fiber cable receive/transmit connectors.

Is the Link LED Lit?

The Link LEDs light when a proper connection between the corresponding 10/100Base-TX or 100Base-FX port and the equipment connected to it is established. If this LED is not lit, check for the problems listed as follows and make corrections as necessary.

1. Problem 1:

   The cable has been cut, damaged, or is the wrong type of cable.

   - ❑ Solution 1:

     — Try making the connection with a different cable. Be sure you are using an undamaged cable of the correct type.

2. Problem 2:

   Connected equipment is not turned ON or is not operating properly.

   - ❑ Solution 2:

     — Check the connected equipment (computer, another switch, etc.) and turn ON the power.

     — Make sure that the SPEED and Duplex Mode for each port of the switch match the settings of the attached computer or additional switch.

3. Problem 3:

   The MDI/MDI-X slide switch for TX is on the wrong setting.

   ❑ Solution 3:

   — Verify that you are using a known good cable, reposition the MDI/MDI-X switch, and check that the Link LED is lit.

4. Problem 4:

   There is signal loss between the switch and one of the attached network nodes.

   ❑ Solution 4:

   — Make sure the distance between the switch and the connected network device does not exceed 100 meters (328 feet). (UTP is half- or full-duplex.)

   — 412 meters (1,351 feet) for multi-mode fiber cable (half-duplex FX operation/2 kilometers (1.2 miles) for full-duplex FX operation) See Table 8, “Technical Specifications,” on page 23 for correct distances for 10Base-T, 100Base-TX and 100Base-FX cable lengths.

   Make sure you are using Category 5 cable when operating at 100 Mbps.

Technical Support and Service

You can contact the dealer where you purchased your product for local assistance. If local help is unable to resolve your problem, Allied Telesyn offers technical support via online, fax or telephone.

Refer to “Contacting Allied Teleysn” on page viii for technical support information or **www.alliedtelesyn.com** for current world-wide office locations.

Appendix A
Technical Specifications

Table 8 lists the technical specifications for the Fast Ethernet Switches.

Table 8 Technical Specifications

Physical Specifications	
Dimensions (L x W x H)	10.5 cm x 9.5 cm x 2.5 cm (4.12 in x 3.75 in 1.0 in)
Weight	300 gm (10.5 oz)
Operating Temperatures	0° to 40° C
Storage Temperatures	-20° to 80° C
Relative Humidity	5% to 80% (non-condensing)
Operating Altitude	Up to 10,000 ft
Electrical and Mechanical Specifications	
Standard	CE Compliant IEEE 802.3, IEEE 802.3u
Immunity	Conforms to EN500082-1 1997 immunity standard
Safety	Conforms to all standards normally supported by Allied Telesyn products including safety standards UL 1950, CSA 22.2 No. 950, TUV EN60950, EN60825 CE Compliant
EMI/RFI	Meets all applicable requirements for emissions including but not limited to FCC Class A, IC Class A, EN55022 Class A
Electrical Rating	
Input Supply Voltage	12V DC
Maximum Current Rating	0.5A
Maximum Power Consumption	6W

Table 8 Technical Specifications *(Continued)*

Transmitter	
Output Power	62.5/125 mM -16.8 dBm 100/140 mM 50/125 mM -20.3 dBm 85/125 mM

Table 9 Fiber Optic Transmitter

Model	**Fiber Type**	**Fiber Optic Diameter (microns)**	**Optical Frequency (nm)**	**Launch Power (dBm)[1]**		
				Max.	**Avg**	**Min.**
AT-FS201 & AT-FS202	MMF	50/125	1310 nm	-14.0	-20.3	-22.5
	MMF	62.5/125	1310 nm	-14.0	-16.8	-19.0
AT-FS201ST/FS1 & AT-FS202SC/FS1	SMF	9/125	1310 nm	-8.0	-11.5	-15.0
AT-FS201ST/FS2 & AT-FS202SC/FS2	SMF	9/125	1310 nm	0.0	-3.0	-5.0
AT-FS201ST/FS3 & AT-FS202SC/FS3	SMF	9/125	1310 nm	0.0	-2.0	-4.0

1. The launch power is measured at one meter from the transmitter.

Table 10 Fiber Optic Receiver

Model	Fiber Type	Fiber Optic Diameter (microns)	Optical Frequency (nm)	Receive Power (dBm)		
				Min. Sensitivity	Typical Sensitivity	Saturation
AT-FS201 & AT-FS202	MMF	50/125	1310 nm	-31.8	-34.5	-14.0
	MMF	62.5/125	1310 nm	-31.8	-34.5	-14.0
AT-FS201ST/FS1 & AT-FS202SC/FS1	SMF	9/125	1310 nm	-31.0	-31.0	-8.0
AT-FS201ST/FS2 & AT-FS202SC/FS2	SMF	9/125	1310 nm	-35.0	-38.0	0.0
AT-FS201ST/FS3 & AT-FS202SC/FS3	SMF	9/125	1310 nm	-37.0	-37.0	-3.0

Table 11 Fiber Optic Datalink

Model	Fiber Type	Min. Power / Link Budget (dB)	Avg. Signal Loss (dB)	Min. Distance Specs.[1]	Max. Distance Specs.
AT-FS201 & AT-FS202	50/125 MMF	13.00	18.70	0	2 km (1.25 mi)
	62.5/125 MMF	16.80	22.50	0	2 km (1.25 mi)
AT-FS201ST/FS1 & AT-FS202SC/FS1	9/125 SMF	16.00	19.50	0	15 km (9.4 mi)
AT-FS201ST/FS2 & AT-FS202SC/FS2	9/125 SMF	30.00	35.00	0	40 km (25 mi)
AT-FS201ST/FS3 & AT-FS202SC/FS3	9/125 SMF	33.00	35.00	15 km (9.4 mi)	75 km (46 mi)

1. The recommended minimum range is stated in all cases where the maximum trans mitter output power exceeds the receivers saturation level. This is to prevent blinding or burning out of the optical receiver on the far-end node.

Pinout Assignments

Figure 14 shows the pin assignments of the switch's 10/100Base-TX RJ-45 connector.

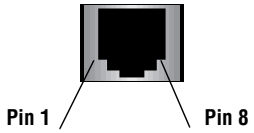


Figure 14 RJ-45 Pin Assignments

Table 5 lists the 10/100Base-TX connector pins and their signals when the MDI-X/MDI switch is in either position.

Table 12 Pinout Assignments

MDI-X (Default)	Signal	MDI	Signal
1	RX+	1	TX+
2	RX-	2	TX-
3	TX+	3	RX+
4	-	4	-
5	-	5	-
6	TX-	6	RX-
7	-	7	-
8	-	8	-

Appendix B

Electrical Safety and Installation Requirements

Important: This appendix contains multiple-language translations for the safety statements in this guide.

Wichtig: Dieser Anhang enthält Übersetzungen der in diesem Handbuch enthaltenen Sicherheitshinweise in mehreren Sprachen.

Vigtigt: Dette tillæg indeholder oversættelser i flere sprog af sikkerhedsadvarslerne i denne håndbog.

Belangrijk: Deze appendix bevat vertalingen in meerdere talen van de veiligheidsopmerkingen in deze gids.

Important: Cette annexe contient la traduction en plusieurs langues des instructions de sécurité figurant dans ce guide.

Tärkeää: Tämä liite sisältää tässä oppaassa esiintyvät turvaohjeet usealla kielellä.

Importante: questa appendice contiene traduzioni in più lingue degli avvisi di sicurezza di questa guida.

Viktig: Dette tillegget inneholder oversettelser til flere språk av sikkerhetsinformasjonen i denne veiledningen.

Importante: Este anexo contém traduções em vários idiomas das advertências de segurança neste guia.

Importante: Este apéndice contiene traducciones en múltiples idiomas de los mensajes de seguridad incluidos en esta guía.

Obs! Denna bilaga innehåller flerspråkiga översättningar av säkerhetsmeddelandena i denna handledning.

Standards: This product meets the following standards.

U.S. Federal Communications Commission

RADIATED ENERGY
Note: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
Note: Modifications or changes not expressly approved of by the manufacturer or the FCC, can void your right to operate this equipment.

Industry Canada

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.
Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

1 **RFI Emission** EN55022 Class A

2 **Warning**: In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

3 **Immunity** EN50082-1 1997

4 **Warning**: This product requires shielded cables to comply with emission and immunity standards. If it is used with unshielded cables, the user may be required to take measures to correct the interference problem at their own expense.

5 **Electrical Safety** EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **Warning** Class 1 Laser product.

8 **Warning** Do not stare into the Laser beam.

At time of installation, the Fiber Optic Lasers comply with FDA Radiation Performance Standard 21CFR Subchapter J, applicable at date of manufacture.

9 This is a "CLASS 1 LED PRODUCT" (AT-FS201, AT-FS202, AT-FS203 models)

SAFETY

10 **LIGHTNING DANGER**
DANGER: DO NOT WORK on equipment or CABLES during periods of LIGHTNING ACTIVITY.

11 DO NOT BLOCK AIR VENTS

12 Power to the hub must be sourced only from the adapter.

USA/CANADA
Use a UL Listed/CSA Certified AC adapter of DC 12V, 500mA.

EUROPE - EU
Use TÜV licensed AC adapter of DC 12V, 500mA.

UK
Use a UK Safety Approved AC adapter of DC 12V, minimum 500mA.

13 **OPERATING TEMPERATURE**
This product is designed for a maximum ambient temperature of 40 degrees C.

14 **ALL COUNTRIES**: Install product in accordance with local and National Electrical Codes.

Normen: Dieses Produkt erfüllt die Anforderungen der nachfolgenden Normen.

1 **Hochfrequenzstörung** EN55022 Klasse A

2 **Warnung**: Bei Verwendung zu Hause kann dieses Produkt Funkstörungen hervorrufen. In diesem Fall müßte der Anwender angemessene Gegenmaßnahmen ergreifen.

3 **Störsicherheit** EN50082-1 1997

4 **Achtung**: Für dieses Produkt sind abgeschirmte Kabel erforderlich, damit den Richtlinien für Emission und Interferenzschutz entsprochen wird. Falls das Produkt mit nicht abgeschirmten Kabeln verwendet wird, können weitergehende Maßnahmen für die Korrektur von Interferenzproblemen auf Kosten des Benutzers notwendig werden.

5 **Elektrische Sicherheit** EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **Warnung** Laserprodukt der Klasse 1.

8 **Warnung** Nicht direkt in den Strahl blicken.

9 Das ist ein “LED Produkt der Klasse 1”

SICHERHEIT

10 **GEFAHR DURCH BLITZSCHLAG**
GEFAHR: Keine Arbeiten am Gerät oder an den Kabeln während eines Gewitters ausführen

11 ENTLÜFTUNGSÖFFNUNGEN NICHT VERSPERREN

12 Der Buchse darf nur aus dem Adapter Strom zugeführt werden.

EUROPE - EU
Gebrauchen Sie einen von TÜV zugelassenen Wechselstromadapter für Gleichstrom 12 V, 500 mA.

13 **BETRIEBSTEMPERATUR**
Dieses Produkt wurde für den Betrieb in einer Umgebungstemperatur von nicht mehr als 40° C entworfen.

14 **ALLE LÄNDER**: Installation muß örtlichen und nationalen elektrischen Vorschriften entsprechen.

Standarder: Dette produkt tilfredsstiller de følgende standarder.

1 **Radiofrekvens forstyrrelsesemission** EN55022 Klasse A

2 **Advarsel**: I et hjemligt miljø kunne dette produkt forårsage radio forstyrrelse. Bliver det tilfældet, påkræves brugeren muligvis at tage tilstrækkelige foranstaltninger.

3 **Immunitet** EN50082-1 1997

4 **Advarsel**: Dette produkt skal bruges med afskærmede kabler for at overholde bestemmelserne vedrørende udstråling og støjimmunitet. Hvis det bruges med uafskærmede kabler, kan det blive påkrævet af brugeren at korrigere interferensproblemer for egen regning.

5 **Elektrisk sikkerhed**. EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **Advarsel** Laserprodukt av klasse 1.

8 **Advarsel** Stirr ikke på strålen.

9 Dette er et “PRODUKT UNDER KLASSE 1 LED”

SIKKERHED

10

FARE UNDER UVEJR
FARE: UNDLAD at arbejde på udstyr eller KABLER i perioder med LYNAKTIVITET.

11 VENTILATIONSÅBNINGERNE MÅ IKKE BLOKERES

12 Strømforsyningen til apparatet må udelukkende tages fra tilpasningstransformatoren.

EUROPE - EU
Brug kun TÜV godkendt vekselstrømstransformator på 12 V jævnstrøm, 500 mA.

13 **BETJENINGSTEMPERATUR**
Dette apparat er konstrueret til en omgivende temperatur på maksimum 40 grader C.

14 **ALLE LANDE**: Installation af produktet skal ske i overensstemmelse med lokal og national lovgivning for elektriske installationer.

Eisen: Dit product voldoet aan de volgende eisen.

1 **RFI Emissie** EN55022 Klasse A

2

Waarschuwing: Binnenshuis kan dit product radiostoring veroorzaken, in welk geval de gebruiker verplicht kan worden om gepaste maatregelen te nemen.

3 **Immuniteit** EN50082-1 1997

4 **Waarschuwing**: Om te voldoen aan de emissie- en immuniteitsnormen dient dit apparaat te zijn voorzien van afgeschermde kabels. Als het met niet-afgeschermde kabels wordt gebruikt, kan het zijn dat de gebruiker maatregelen moet treffen om interferentieproblemen voor eigen rekening op te lossen.

5 **Electrische Veiligheid** EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **Waarshuwing** Klasse-1 laser produkt.

8 **Waarchuwing** Neit in de straal staren.

9 Dit is een “KLASSE 1 LED-PRODUKT”

VEILIGHEID

10

GEVAAR VOOR BLIKSEMINSLAG
GEVAAR: NIET aan toestellen of KABELS WERKEN bij BLIKSEM.

11 VENTILATIEGATEN NIET BLOKKEREN

12 Stroom mag alleen via de adapter naar het apparaat toegevoerd worden.

EUROPE - EU
Gebruik een door TÜV gekeurde wisselstroomadapter van 12 Volt gelijkstroom, 500 milliampères.

13 **BEDRIJFSTEMPERATUUR**
De omgevingstemperatuur voor dit produkt mag niet meer bedragen dan 40 graden Celsius.

14 **ALLE LANDEN**: het toestel installeren overeenkomstig de lokale en nationale elektrische voorschriften.

Normes: ce produit est conforme aux normes de suivantes.

1 **Emission d'interférences radioélectriques** EN55022 Classe A

2 **Mise En Garde**: dans un environnement domestique, ce produit peut provoquer des interférences radioélectriques. Auquel cas, l'utilisateur devra prendre les mesures adéquates.

3 **Immunité** EN50082-1 1997

4 **Avertissement** : Il faut utiliser des câbles blindés pour ce produit afin de respecter les normes d'émission et d'immunité. Si l'utilisateur choisit d'utiliser des câbles non blindés, il sera peut-être contraint de prendre les mesures nécessaires pour corriger les problèmes d'interférences, ainsi que d'assumer le coût correspondant.

5 **Sécurité électrique** EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **Attention** Producit laser di classe 1.

8 **Attention** Ne pas fixer le faisceau des yeux.

9 Ce mat,riel est un "PRODUIT A DIODE LECTROLUMINESCENTE DE CLASSE 1"

SÉCURITÉ

10 **DANGER DE FOUDRE**
DANGER: NE PAS MANIER le matériel ou les CÂBLES lors d'activité orageuse.

11 NE PAS BLOQUER LES FENTES D'AÉRATION

12 L'alimentation du concentrateur doit être uniquement fournie par l'adaptateur.

EUROPE - EU
Utiliser un adaptateur secteur conforme TÜV de 12 V, 500 mA en courant continu.

13 **TEMPÉRATURE DE FONCTIONNEMENT**
Ce matériel est capable de tolérer une température ambiante maximum de 40 degrés Celsius.

14 **POUR TOUS PAYS**: Installer le matériel conformément aux normes électriques nationales et locales.

Standardit: Tämä tuote on seuraavien standardien mukainen.

1 **Radioaaltojen häirintä** EN55022 Luokka A

2 **Varoitus**: Kotiolosuhteissa tämä laite voi aiheuttaa radioaaltojen häiröitä, missä tapauksessa laitteen käyttäjän on mahdollisesti ryhdyttävä tarpeellisiin toimenpiteisiin.

3 **Kestävyys** EN50082-1 1997

4 **Varoitus**: Tämä tuote vaatii suojattuja kaapeleita toimiakseen emissio- ja häiriönsietostandardien mukaisesti. Jos tuotetta käytetään ilman suojattuja kaapeleita, käyttäjä voi joutua korjaamaan häirinnän aiheuttaman ongelman omalla kustannuksellaan.

5 **Sähköturvallisuus** EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **Varoitus** Luokan 1 Lasertuote.

8 **Variotus** Älä katso säteeseen.

9 Tämä on "ENSIMMÄISEN LUOKAN VALODIODITUOTE"

TURVALLISUUS

10 **SALAMANISKUVAARA**
ENGENVAARA: ÄLÄ TYÖSKENTELE laitteiden tai KAAPELEIDEN KANSSA SALAMOINNIN AIKANA.

11 ÄLÄ TUKI ILMAREIKIÄ

12 Tähtipisteeseen (hub) syötettävän virran pitää tulla ainoastaan sovittimesta.

EUROPE - EU
Käytä TÜV-lisenssillä valmistettua verkkosovitinta, jonka tasajännitteen nimellisarvot ovat DC 12 V, 500 mA (milliampeeria).

13 **KÄYTTÖLÄMPÖTILA**
Tämä tuote on suunniteltu ympäröivän ilman maksimilämpötilalle 40° C.

14 **KAIKKI MAAT**: Asenna tuote paikallisten ja kansallisten sähköturvallisuusmääräysten mukaisesti.

Standard: Questo prodotto è conforme ai seguenti standard.

1 **Emissione RFI (interferenza di radiofrequenza)** EN55022 Classe A

2 **Avvertenza**: in ambiente domestico questo prodotto potrebbe causare radio interferenza. In questo caso potrebbe richiedersi all'utente di prendere gli adeguati provvedimenti.

3 **Immunità** EN50082-1 1997

4 **Avvertenza**: questo prodotto, se utilizzato con cavi schermati, è conforme alle norme sulle emissioni e sull'immunità. In caso di uso senza cavi schermati, l'utente può dover adottare a proprie spese misure correttive contro le interferenze.

5 **Sicurezza elettrica** EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **Avvertenza** Prodotto laser di Classe 1.

8 **Avertenza** Non fissare il raggio con gli occhi.

9 Questo è un "PRODOTTO CON LED DI CLASSE 1"

NORME DI SICUREZZA

10 **PERICOLO DI FULMINI**
PERICOLO: NON LAVORARE sul dispositivo o sui CAVI durante PRECIPITAZIONI TEMPORALESCHE.

11 NON OSTRUIRE LE PRESE D'ARIA

12 Questo dispositivo deve essere alimentato solo mediante l'adattatore.

EUROPE - EU
Utilizzare l'adattatore per c.a. da 12 V c.c. e 500 mA conforme alla normativa TÜV.

13 **TEMPERATURA DI FUNZIONAMENTO**
Questo prodotto è concepito per una temperatura ambientale massima di 40 gradi centigradi.

14 **TUTTI I PAESI**: installare il prodotto in conformità delle vigenti normative elettriche nazionali.

Sikkerhetsnormer: Dette produktet tilfredsstiller følgende sikkerhetsnormer.

1 **RFI stråling** EN55022 Klasse A

2 **Advarsel**: Hvis dette produktet benyttes til privat bruk, kan produktet forårsake radioforstyrrelse. Hvis dette skjer, må brukeren ta de nødvendige forholdsregler.

3 **Immunitet** EN50082-1 1997

4 **Advarsel**: Dette produktet må brukes med vernede kabler for å tilfredsstille emisjons- og fritakelsesstandarder. Dersom produktet brukes med uvernede kabler, må brukeren muligens rette forstyrrelsesproblemene for egen regning.

5 **Elektrisk sikkerhet** EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **ADVARSEL** Laserprodukt av klasse 1.

8 **ADVARSAL** Stirr ikke på strålen.

9 Dette er et "KLASSE 1 LED PRODUKT"

SIKKERHET

10 **FARE FOR LYNNEDSLAG**
FARE: ARBEID IKKE på utstyr eller KABLER i TORDENVÆR.

11 BLOKKER IKKE LUFTVENTILENE

12 All strømtilførsel må komme fra adapteren.

EUROPE - EU
Benytt TÜV-godkjent AC-adapter på 12V DC, 500mA (millismpere)

13 **DRIFTSTEMPERATUR**
Dette produktet er konstruert for bruk i maksimum romtemperatur på 40 grader celsius.

14 **ALLE LAND**: Produktet må installeres i samsvar med de lokale og nasjonale elektriske koder.

Padrões: Este produto atende aos seguintes padrões.

1 **Emissão De Interferência De Radiofrequência** EN55022 Classe A

2 **Aviso**: Num ambiente doméstico este produto pode causar interferência na radiorrecepção e, neste caso, pode ser necessário que o utente tome as medidas adequadas.

3 **Imunidade** EN50082-1 1997

4 **Advertência**: Este produto requer a utilização de cabos blindados para cumprimento dos standards de limites de emissão e imunidade. Se o produto for utilizado com cabos não blindados, o utilizador poderá necessitar de tomar medidas para correcção de problemas de interferência, por sua própria conta.

5 **Segurança Eléctrica** TUV-EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **Aviso** Produto laser de classe 1.

8 **Aviso** Não olhe fixamente para o raio.

9 Este é um "PRODUTO CLASSE 1 LED"

SEGURANÇA

10 **PERIGO DE CHOQUE CAUSADO POR RAIO**
PERIGO: NÃO TRABALHE no equipamento ou nos CABOS durante períodos suscetíveis a QUEDAS DE RAIO.

11 NÃO BLOQUEIE AS ABERTURAS DE VENTILAÇÃO

12 Use somente o adaptador fornecido para alimentação elétrica do hub.

EUROPE - EU
Use um adaptador de corrente alternada com saída DC de 12V e 500mA em conformidade com as especificações da TÜV.

13 **TEMPERATURA DE FUNCIONAMENTO**
Este produto foi projetado para uma temperatura ambiente máxima de 40 graus centígrados.

14 **TODOS OS PAÍSES**: Instale o produto de acordo com as normas nacionais e locais para instalações elétricas.

Estándares: Este producto cumple con los siguientes estándares.

1 **Emisión RFI** EN55022 Clase A

2 **Advertencia**: en un entorno doméstico, este producto puede causar radiointerferencias, en cuyo caso, puede requerirse del usuario que tome las medidas que sean convenientes al respecto.

3 **Inmunidad** EN50082-1 1997

4 **Advertencia**: Este producto exige cables protectores para ajustarse a las normas de emisión e inmunidad. Si se utiliza con cables sin protección, el usuario tendrá que correr con los gastos por las medidas a tomar en caso de problemas de interferencias.

5 **Seguridad eléctrica** TUV-EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **¡ADVERTENCIA!** Producto láser Clase 1.

8 **¡ADVERTENCIA!** No mirat fijamente el haz.

9 Este es un “PRODUCTO DE DIODO LUMINISCENTE (LED) CLASE 1”

SEGURIDAD

10 **PELIGRO DE RAYOS**
ELIGRO: NO REALICE NINGUN TIPO DE TRABAJO O CONEXION en los equipos o en LOS CABLES durante TORMENTAS ELECTRICAS.

11 NO BLOQUEE LAS ABERTURAS PARA VENTILACION

12 La energía para el dispositivo central o "hub" debe provenir únicamente del adaptador.

EUROPE - EU
Utilizar un adaptador de corriente alterna autorizado TÜV de 12 voltios de corriente continua y 500 miliamperios.

13 **TEMPERATURA REQUERIDA PARA LA OPERACIÓN**
Este producto está diseñado para una temperatura ambiental máxima de 40 grados C.

14 **PARA TODOS LOS PAÍSES**: Monte el producto de acuerdo con los Códigos Eléctricos locales y nacionales.

Standarder: Denna produkt uppfyller följande standarder.

1 **Radiostörning** EN55022 Klass A

2 **Varning**: Denna produkt kan ge upphov till radiostörningar i hemmet, vilket kan tvinga användaren till att vidtaga erforderliga åtgärder.

3 **Immunitet** EN50082-1 1997

4 **Varning**! Denna produkt kräver skärmade kablar för att uppfylla standardkraven för emission och immunitet. Om den används med oskärmade kablar kan användaren vara tvungen att vidta åtgärder på egen bekostnad för att åtgärda störningsproblemet.

5 **Elsäkerhet** TUV-EN60950, UL1950, CSA 950

6 **Laser** EN60825

7 **VARNING!** Laserprodukt av klass 1.

8 **VARNING!** Laserstrålning när enheten är öppen.

9 Detta är en "KLASS 1 LYSDIODPRODUKT"

SÄKERHET

10 **FARA FÖR BLIXTNEDSLAG**
FARA: ARBETA EJ på utrustningen eller kablarna vid ÅSKVÄDER.

11 BLOCKERA INTE LUFTVENTILERN

12 Endast anslutningsenheten får vara kraftkälla till centralen.

EUROPE - EU
Använd en växelströmsanslutningsenhet licensierad av TÜV. Likström 12V, 500mA.

13 **DRIFTSTEMPERATUR**
Denna produkt är konstruerad för rumstemperatur ej överstigande 40 grader Celsius.

14 **ALLA LÄNDER**: Installera produkten i enlighet med lokala och statliga bestämmelser för elektrisk utrustning.

Appendix C
Technical Support Fax Order

Name _____

Company _____

Address _____

City _____ State/Province _____

Zip/Postal Code _____ Country_____

Phone _____ Fax_____

Incident Summary

Model number of Allied Telesyn product I am using_____

Network software products I am using _____

_____

Brief summary of problem _____

_____

Conditions (List the steps that led up to the problem.)_____

_____

_____

_____

_____

Detailed description (Use separate sheet, if necessary)

_____

_____

_____

_____

_____

_____

_____

_____

When completed, fax this sheet to the appropriate Allied Telesyn office. Fax numbers can be found on page viii.

Appendix D

AT-FS201, AT-FS202 and AT-FS203 Series Installation Guide Feedback

Please tell us what additional information you would like to see discussed in the guide. If there are topics you would like information on that were not covered in the guide, please photocopy this page, answer the questions and fax or mail this form back to Allied Telesyn. The mailing address and fax number are at the bottom of the page. Your comments are valuable when we plan future revisions of the guide.

I found the following the most valuable _____

_____

_____

_____

I would like the following more developed _____

_____

_____

_____

I would find the guide more useful if _____

_____

_____

_____

Please fax or mail your feedback. Fax to 1-408-736-0100. Or mail to:
Allied Telesyn International, Corp.
c/o Technical Communications
960 Stewart Drive, Suite B
Sunnyvale, CA 94086 USA

PN 613-10761-00 Rev B